

**V O L V O**



Volvo Wheel Loaders 8.6-9.9 t / 19,114-21,958 lb 98-117 hp

# **L45H, L50H**

Volvo Construction Equipment



# Welcome to our world

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

## **Working harder, working smarter**

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.



## Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

### Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

### There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.



# BUILDING TOMORROW

# The best all-rounder

More than 60 years in the making, Volvo is proud to introduce the L45H and L50H wheel loaders. These versatile machines are a powerful asset on every jobsite in every application.

## Intelligent hydraulic system

Volvo's load-sensing hydraulic system drives power to the hydraulic functions according to demand, giving you fast response for shorter cycle times while lowering fuel consumption. Ensuring superior load control together with a careful balance between lifting and tractive forces, this powerful system provides highly effective bucket penetration for all types of digging conditions.



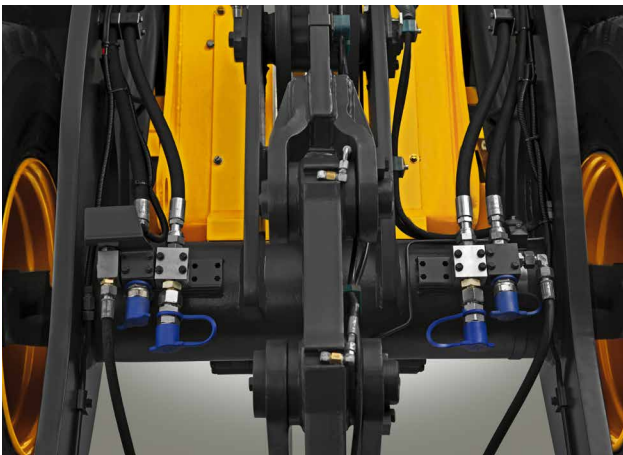
## Boom Suspension System (BSS)

The optional Boom Suspension System boosts productivity by up to 20% by absorbing shock and reducing the bouncing and bucket spillage that occurs when operating on rough ground. This enables faster and more comfortable work cycles and increases machine life.



## Auxiliary hydraulics

The machines can be factory-fitted with extra hydraulic lines to operate and run a variety of hydraulically driven attachments.



## Comfort Drive Control (CDC)

Comfort Drive Control enables machine steering from a single lever, improving operator comfort and productivity over long working hours. It also reduces operator fatigue, which may occur during repetitive work.





# TORQUE PARALLEL LINKAGE

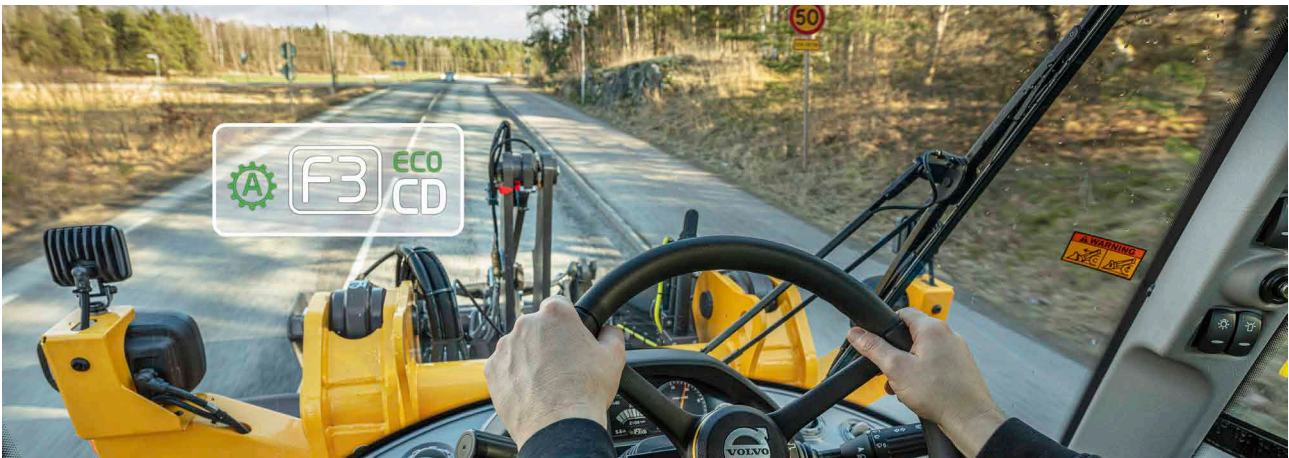
Volvo's unique Torque Parallel (TP) linkage delivers high breakout torque and excellent parallel movement throughout the entire lifting range.

# Pick up the pace

With both standard and high-speed versions available, you can ensure your Volvo L45H/L50H wheel loader matches the speed of your application, resulting in optimum productivity and cycle times according to the demands of your operation.

## The right mode for the job

The high-speed machine features a unique drive mode selector, which lets the operator adjust driveline behaviour to match the task at hand. At the flick of a switch the operator can customize the settings and choose their preferred available drive mode. The result is a highly efficient machine, delivering maximum productivity.



## Optimum tractive power

With the tractive power selector, the high-speed machine delivers the right traction for the right situation. The intelligent function gives operators a choice of 5 modes to adjust tractive force to suit the prevailing ground conditions. The result is less wheel spin, reduced tire wear and lower fuel consumption. An optional speed limiter is also available which will reduce vehicle speed when operating in a selected drive mode and gear, without losing tractive force.





# PERFORMANCE AT SPEED

The higher speeds of the L45H/L50H\* helps you achieve faster cycle times and facilitates travel between jobsites.

\*Depending on local regulations.

# Get attached

Get flexible on site with original Volvo Attachments. Designed for versatility and efficiency, our range of Volvo Attachments secures best-in-class performance from your Volvo wheel loader.

## Standard Volvo Attachment Bracket (VAB-STD)

The standard Volvo hydraulic attachment bracket VAB-STD, also known as TPV, is internationally ISO standardized and allows a quick and safe interchange of attachments for more flexibility on site. The robust, cast and open bracket design enables the operator to clearly see attachment points from the cab.







# ATTACHMENT RANGE

Volvo's wide range of durable attachments have been purpose-built to work in perfect harmony with Volvo machines. The attachments are designed as an integrated part of the wheel loader for which they're intended – with functions and properties perfectly matched to parameters including link-arm geometry and breakout, rim pull and lifting force.

# Tackle every terrain

Whether working on smooth or rough terrain, Volvo L45H and L50H wheel loaders give you top performance. Quality is built into every inch of the machines, from the differential lock that transfers 100% power to all wheels, to the hydrostatic transmission which offers smooth speed increase.

## Inch-brake pedal

The inch-brake pedal gives the best possible machine control. Applying light pressure on the pedal reduces travel speed, while the last third of the inch-brake pedal engages the wet disc brakes, bringing the machine to a secure standstill position.



## Axles and differential locks

While the heavy-duty planetary axles ensure long life in the toughest conditions, the front and rear 100% differential locks feature a dog clutch locking capability and a no slip, no wear design to improve grip and ensure maximum traction on all terrain.



## Hydrostatic drive

The fuel efficient hydrostatic transmission matches power to requirement. It provides excellent control in delicate work and full power for more demanding jobs.



## Efficient Volvo engine

The powerful and fuel efficient Tier 4 final engine from Volvo delivers high torque at low engine rpm. The engine features an Exhaust Gas Recirculation (EGR) in combination with an integrated Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) system.



## Reversible cooling fan

The hydraulically-driven electronically controlled cooling fan regulates the temperature of vital components. You can activate it manually or choose between two automatic settings. The reversible functionality – which blows air in the opposite direction – allows for self-cleaning of the cooling units.



# OPTIMIZED DRIVELINE

The engine, transmission and axles are all designed to work in perfect harmony with the hydraulics and steering for superb performance, durability and reliability.

# Your control center

Step into Volvo's industry-leading cab; your customized control room. Create your perfect working environment by adjusting the seat and steering wheel to fit your needs, then select the easy-to-reach controls. Excellent all-round visibility gives you the best view of your efficient work.

## Fitted to your needs

Operate with a joystick or multi-lever hydraulic pilot control, depending on your preference. Both provide steady and precise load control.



## Human Machine Interface

Increase uptime with Volvo's state-of-the-art Contronic system, which continuously monitors machine performance and communicates diagnostics to the operator via a screen in the cab.



## Climate control

Operators remain focused and efficient thanks to Volvo's climate control system. Select optional Automatic Heat Control (AHC) or Air Conditioning (AC) for the perfect cab temperature.



## Air filter

The cab air intake is located high on the machine, where air is cleanest. The easy-to-replace pre-filter separates coarser dust and particles before the air passes through the main filter and finally enters the cab, giving the operator the freshest air.



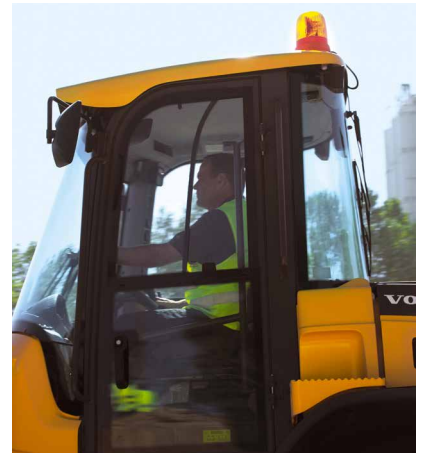
## Cab access

Large, anti-slip steps and handrails ensure easy cab entry and exit.



## Quiet and steady

The molded cab roof and insulation provide excellent sound absorption. The silicon oil cab mounts reduce vibration, resulting in less operator fatigue.





# COMFORTABLE CAB

The certified ROPS/FOPS cab features ergonomically placed controls, a superior climate control system, all-around visibility and low internal noise levels.

# Small size: big talent

## Comfortable cab

- Easy cab access
- All-around visibility
- Intuitive controls
- Quiet, steady environment

## Take control

- Comfort Drive Control:  
lever steering (optional)
- Inch-brake pedal
- Joystick or multi-lever  
hydraulic pilot control

## Short cycle times

- Differential lock front and rear
- Load-sensing hydraulics
- Powerful, fuel efficient Volvo engine
- Torque parallel linkage



## High-speed hydrostatic transmission

- Travel up to 31 mph (50 km/h) \*L50H only
- Drive mode selector
- Adjustable tractive power
- Hand speed limiter (optional)



## Balanced and compact design

- Long wheel base, low center of gravity
- Transversal engine mounting: optimal weight distribution
- Sloped counterweight enables high departure angles

## Maximum uptime

- Reversible cooling fan
- Maintenance-free rear axle oscillation
- Dual element air filter protecting the engine
- Grouped grease points
- DPF regeneration occurs every 500 hours

## The complete package

- Range of matched Volvo Attachments
- CareTrack telematics system: easy machine monitoring
- Genuine Volvo Parts
- Maintenance and Repair agreements

# Solid, strong and stable

The Volvo L45H and L50H are compact and well balanced wheel loaders whose solid design gives you the strongest performance in the tightest jobsites. Quality is built into every inch of the machines.

## Stability where you need it

A long wheel base, low center of gravity and good weight distribution gives the machine superior stability on rough and uneven terrain.



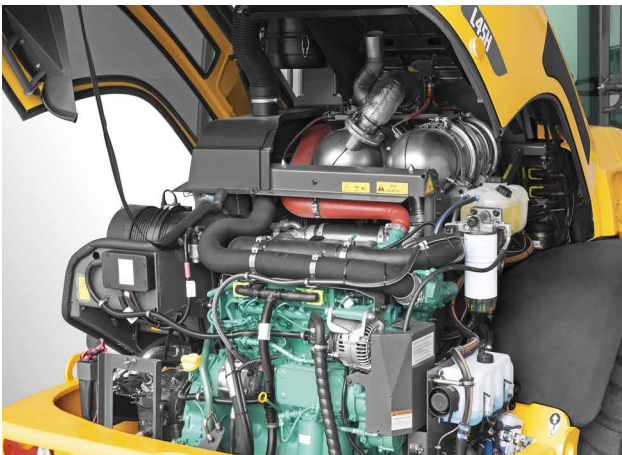
## Strongest center hinge

The center hinge is designed to withstand considerable horizontal and vertical stress. The upper spherical plain bearing and lower fixed plain bearing are widely spaced to spread forces over a greater area for a long bearing life.



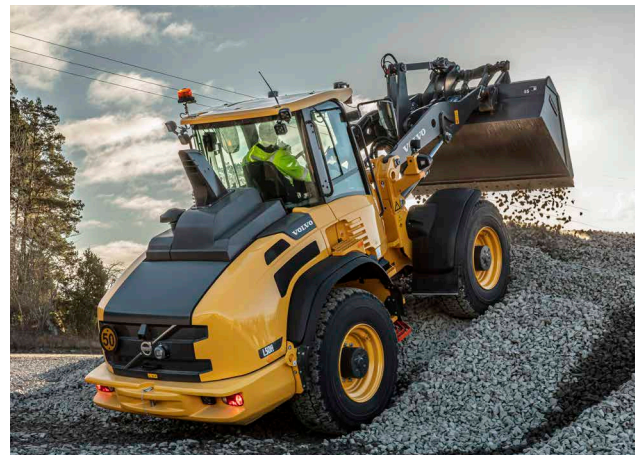
## Transversal engine mounting

The Volvo engine is assembled transversally, set back from the center of gravity. This provides optimal weight distribution for enhanced driving stability, and also makes all service points and hydraulic pumps easily accessible on one side of the engine.



## Counterweight design

The sloped design of the counterweight ensures the machine can achieve very high departure angles, while its compact shape improves manoeuvrability in confined spaces.







# BALANCED & COMPACT DESIGN

The Volvo L45H and L50H wheel loaders give you top performance whether working on smooth or rough terrain. Conquer your site with Volvo.

# Maximum uptime

Daily service and maintenance checks have never been easier with the L45H and L50H wheel loaders. Lift the engine hood to quickly access key components from the radiator to the hydraulic filters and use Volvo diagnostic tools to alert when service is required. Volvo keeps you working for longer.

## Maintenance-free rear axle oscillation

The oscillating rear axle is supported on maintenance-free cradles. Its bearings and bushings are lubricated-for-life and protected by well proven seals, saving you hours of maintenance time and increasing uptime.



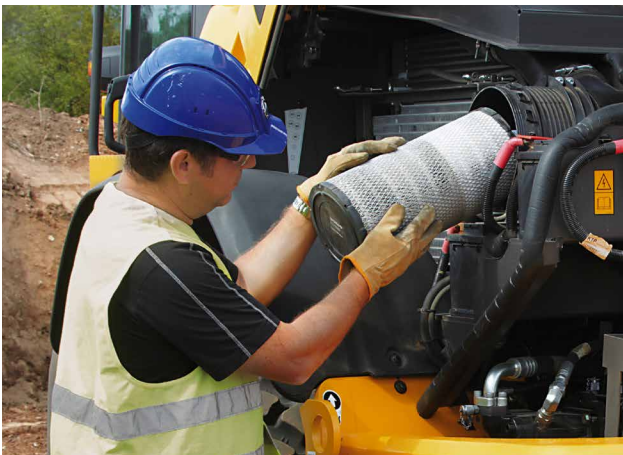
## Analysis software

Maximize machine uptime with Volvo's diagnostic analysis software. MATRIS analyses the machine's operational data and VCADS Pro can adjust machine function accordingly.



## Engine air filter

The dual element air filter is located in the engine compartment for full protection of the engine.



## Grouped grease points

Grease points are grouped together on the loader arm as well as on the centre hinge for easy and quick maintenance.





# EASY MAINTENANCE

The service friendly design keeps your routine maintenance quick and efficient with a full access to the engine compartment. Service points (radiator, battery, oil, air and hydraulic filters) and quick drains are ground accessible under the engine hood, for quick completion of service checks so you can spend more time working.

# Volvo L45H, L50H in detail

## Engine

Volvo Tier 4f compliant, 4 liter, 4-cylinder in-line turbocharged diesel engine; featuring common rail fuel injection system and externally cooled exhaust gas recirculation (EGR). Exhaust aftertreatment system includes a diesel oxidation catalyst (DOC), a diesel particulate filter (DPF) and a selective catalytic reduction (SCR). Cooling pack includes side by side arranged radiators for engine coolant, hydraulic oil and charge air cooler.

		L45H	L50H
Engine	Volvo	D4J	D4J
Max power at	r/min (r/s)	1 800 - 2 200 (30 - 36.7)	1 800 - 2 200 (30 - 36.7)
SAE J1995 gross	kW (hp)	75 (100)	87 (117)
SAE J1349, ISO 9249 net	kW (hp)	73 (97.9)	85 (114)
Max. torque at	r/min (r/s)	1 450 (24.2)	1 450 (24.2)
SAE J1995 gross	Nm (ft lbf)	425 (314)	475 (350)
SAE J1349, ISO 9249 net	Nm (ft lbf)	416 (307)	466 (344)
Economic working range	r/min (r/s)	1 200 - 1 800 (20 - 30)	1 200 - 1 800 (20 - 30)
Displacement	l (in <sup>3</sup> )	4 (244)	4 (244)

## Drivetrain

Hydrostatic transmission allows for of speed range change without any tractive power interruption. Maximum tractive power is available in all speed ranges, regardless of the driving direction. Automatic power regulation prevents engine stalling in case of additional power demand from the working hydraulics or the auxiliaries, and protects from overheating in case of overload. Fully floating axle shafts with planetary hub reductions and steel casted axle housing. Fixed front axle and oscillating rear axle, both self-lubricated. 100% differential lock on both axles. For 40/50 km/h\* speed version only: The drive modes selector enable to select the best possible driveline setting for every applications and operator preference. \*max vehicle speed market dependent

		L45H	L50H
<b>Travel speed, forward/reverse</b>			
<b>20 km/h-speed version</b>			
1st gear	km/h (mi/h)	0 - 6 (0 - 3.7)	0 - 6 (0 - 3.7)
2nd gear	km/h (mi/h)	0 - 20 (0 - 12.4)	0 - 20 (0 - 12.4)
<b>30 km/h (19 mi/h)-speed version</b>			
1st gear	km/h (mi/h)	0 - 6 (0 - 3.7)	0 - 6 (0 - 3.7)
2nd gear	km/h (mi/h)	0 - 30 (0 - 19)	0 - 30 (0 - 19)
<b>50 km/h (31 mi/h)*-speed version</b>			
1st gear	km/h (mi/h)	0 - 6 (0 - 3.7)	0 - 6 (0 - 3.7)
2nd gear	km/h (mi/h)	0 - 19 (0 - 11.8)	0 - 19 (0 - 11.8)
3rd gear	km/h (mi/h)	0 - 45* (0 - 28*)	0 - 50* (0 - 31*)

\*max vehicle speed market dependent

## Hydraulic system

Closed center load sensing hydraulic system with pilot operated control valves.

### System supply:

A variable displacement piston pump provides flow to the working hydraulic and steering system. The steering function has always priority. A gear pump provides flow to the braking system and the cooling fan.

### System control:

Double-acting 3-spools main control valve (4-spools valve as option).

The lift function has four positions: lift, hold (neutral), lower and float position.

An optional automatic boom kick-out can be switched on and off and is adjustable to any position between maximum reach and full lifting height. The tilt function has three positions: rollback, hold (neutral) and dump.

The standard bucket positioner system allows to easily adjust the tilt angle to a predefined position.

A third and fourth hydraulic functions are available as options to power hydraulic implements (Volvo hydraulic Attachment Bracket, Hi-Tip bucket, angle sweeper etc...)

### Filtration:

Full-flow filtration through 10 micron (absolute) filter cartridge in a combined suction-return-filter.

### Cooling:

Thermostatically controlled oil flow to oil cooler (fast warm-up, optimized cooling).

		L45H	L50H
Main flow	l/min (gal/min)	132 (34.8)	158 (41.7)
Working pressure max	MPa (psi)	26 (3,771)	26 (3,771)
at engine speed	r/min (r/s)	2 200 (36.6)	2 200 (36.6)
Flow auxiliary hydraulics	l/min (gal/min)	120 (31.7)	125 (33)
Working pressure max	MPa (psi)	20 (2,900)	20 (2,900)
at engine speed	r/min (r/s)	2 200 (36.6)	2 200 (36.6)
High flow	l/min (gal/min)	125 (33)	143 (37.8)
Working pressure max	MPa (psi)	20 (2,900)	20 (2,900)
at engine speed	r/min (r/s)	2 200 (36.6)	2 200 (36.6)

## Linkage

Double acting cylinder for all functions

		L45H	L50H
Linkage system	Torque parallel (TP)	Torque parallel (TP)	Torque parallel (TP)
Lift cylinders		2	2
Tilt cylinders		1	1
Lift time (loaded)	s	4.8	4.7
Lowering time (empty)	s	3.2	3.9
Dump time	s	1.5	1.2

## Steering System

Load sensing hydrostatic articulated steering with double acting cylinders.  
**System supply:** The steering system has priority feed from the load-sensing axial piston pump with variable displacement.  
**Steering cylinders:** Two double-acting cylinders. Elastic end-stops.

		L45H	L50H
Steering cylinders		2	2
Working pressure	MPa (psi)	17.5 (2,538)	17.5 (2,538)
Maximum flow	l/min (gal/ min)	70 (18.5)	70 (18.5)
Max articulation	± °	40	40

## Brake system

### Brake system 20 & 30 km/h (12.4 & 19 mi/h) speed version:

The brake system complies with ISO 3450 requirements.  
 Single circuit service brake featuring hydraulically operated wet disk brakes on rear axle.

An Inching-brake pedal provides hydrostatic wearless braking in the first stage for precise approach; if applied further the service brakes takes over for final braking and machine immobilization.

Parking brake: Mechanically operated dry disc brake located on the input shaft of the front axle.

### Brake system 40/50 km/h (24.8/31 mi/h)\*:

The brake system complies with ISO 3450 requirements.  
 Dual circuit service brake featuring hydraulically operated wet disk brakes on front and rear axle.

An electronically Inching-brake pedal provides hydrostatic wearless braking in the first stage for precise approach; if applied further the service brakes takes over for final braking and machine immobilization.

Parking brake: Mechanically operated dry disc brake located on the input shaft of the front axle.

\* max vehicle market dependent

## Electrical system

Contronic electrical system with central warning light and buzzer, providing clear and easy to read information to the operator.  
 LCD display with main and sub information field, adjustable to various languages.

Display information in three categories:

- Information on continuous operating data,
- Check requests (based on vehicle and error messages)
- Warning (with alarm texts).

Additional audible warning by a buzzer.

Indicator and activation lights for various control and monitoring functions.  
 Gauges for Diesel Exhaust Fluid level, fuel tank level, speedometer, engine speed, coolant temperature, transmission/hydraulic oil temperature.

A keypad allows easy navigation on the central instrument display.

Direct access buttons for Engine, Transmission, Hydraulics, Axles & Brakes, Electrical system, Vehicle information, Vehicle messages, Service, Settings and Cycle information.

		L45H	L50H
Voltage	V	24	24
Batteries	V	2x12	2x12
Battery capacity	Ah	2x100	2x100
Cold cranking capacity, approx	A	830	830
Alternator rating	W/A	3 080 / 110	3 080 / 110
Starter motor output	kW	5.5	5.5

## Cab

The cab is tested and approved according to ROPS (ISO 3471, SAE J1040) and FOPS (ISO 3449).

The cab is compliant with ISO 6055 requirements regarding Operator overhead protection - Industrial trucks and SAE J386 regarding Operator Restraint System.

The operator's seat features an adjustable suspension and a retractable seatbelt. Fresh air is filtered through two large elements prior entering, ensuring extremely clean air distribution in the cab.

11 air flow settings or an automatic mode provides efficient ventilation.

Air vents are available to all windows enabling fast de-misting and defrosting.

The contronic monitoring system provides all important information in a central position and all machine controls are located in the operator's field of vision.

## Sound Level

		L45H	L50H
Sound pressure level in cab according to ISO 6396			
L <sub>pA</sub>	dB	70	70
L <sub>pA</sub> (as option)	dB	68	68
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC			
L <sub>WA</sub>	dB	102	102

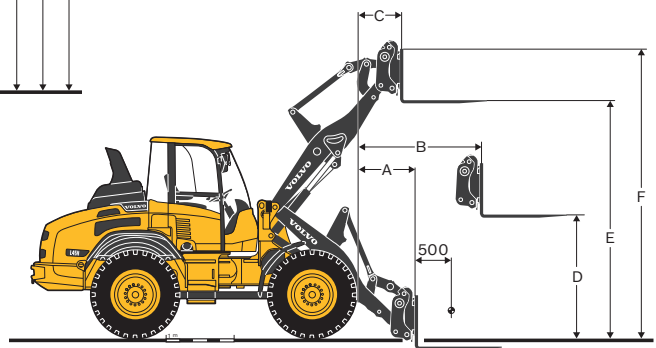
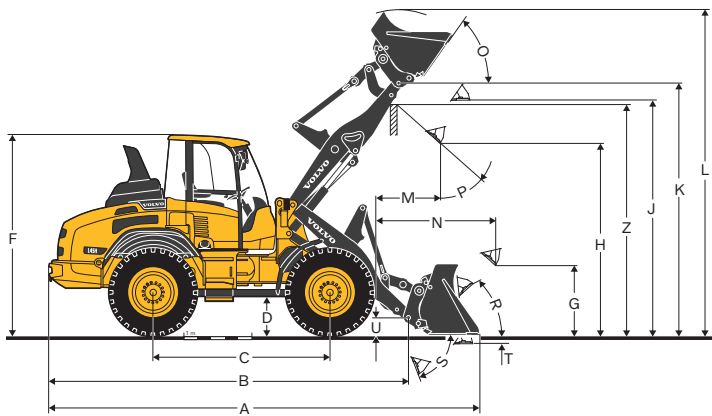
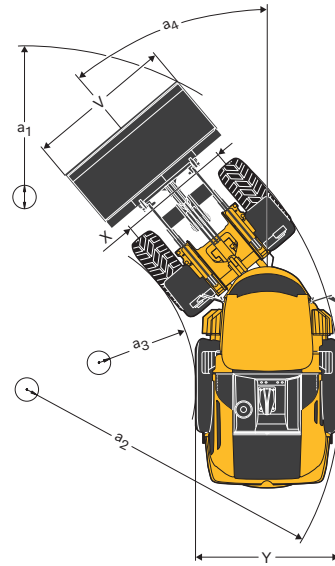
## Service Refill

		L45H	L50H
Fuel tank	l (gal)	160 (42.3)	160 (42.3)
DEF/AdBlue® tank	l (gal)	20 (5.3)	20 (5.3)
Engine oil	l (gal)	14 (3.7)	14 (3.7)
Engine coolant	l (gal)	20 (5.3)	20 (5.3)
Hydraulic tank	l (gal)	95 (25.1)	95 (25.1)
<b>Front axle oil</b>			
20/30 km/h (12.4/18.6 mi/h) speed version	l (gal)	17.5 (4.6)	17.5 (4.6)
<b>Transmission oil</b>			
20/30 km/h (12.4/18.6 mi/h) speed version	l (gal)	17.5 (4.6)	17.5 (4.6)
<b>Front axle oil</b>			
40/50 km/h* (24.8/31 mi/h)* speed version	l (gal)	17 (4.5)	17 (4.5)
<b>Rear axle oil</b>			
40/50 km/h* (24.8/31 mi/h)* speed version	l (gal)	18.3 (4.8)	18.3 (4.8)
<b>Transmission oil</b>			
40/50 km/h* (24.8/31 mi/h)* speed version	l (gal)	2.7 (0.71)	2.7 (0.71)










\*max vehicle speed market dependent










# Specifications L45H

			With TP-linkage, TPV attachment bracket and 15.5-25 tires		With TP-linkage, TPZ attachment bracket and 15.5-25 tires	
B	mm	in	5 320	209.4	5 325	209.6
C	mm	in	2 650	104.3	2 650	104.3
D	mm	in	395	15.5	395	15.5
F	mm	in	2 950	116.1	2 950	116.1
G	mm	in	1 000	39.4	1 000	39.4
J	mm	in	3 430	135	3 430	135
K	mm	in	3 685	145	3 685	145
O	°		55		55	
P	°		45		45	
R	°		45		45	
S	°		75		75	
U	mm	in	255	10	255	10
X	mm	in	1 750	68.9	1 750	68.9
Y	mm	in	2 150	84.6	2 150	84.6
Z	mm	in	3 445	135.6	3 360	132.3
a <sub>2</sub>	mm	in	4 745	186.8	4 745	186.8
a <sub>3</sub>	mm	in	2 555	100.6	2 555	100.6
a <sub>4</sub>	°		40		40	



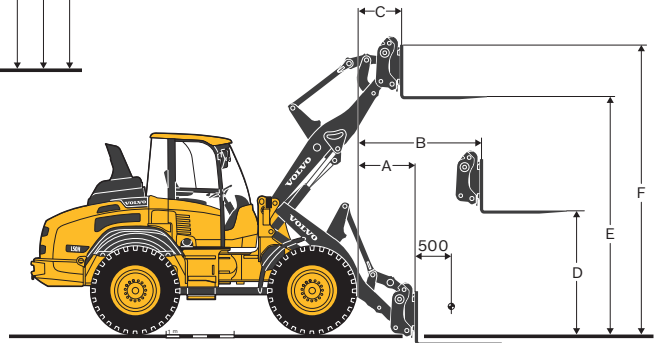
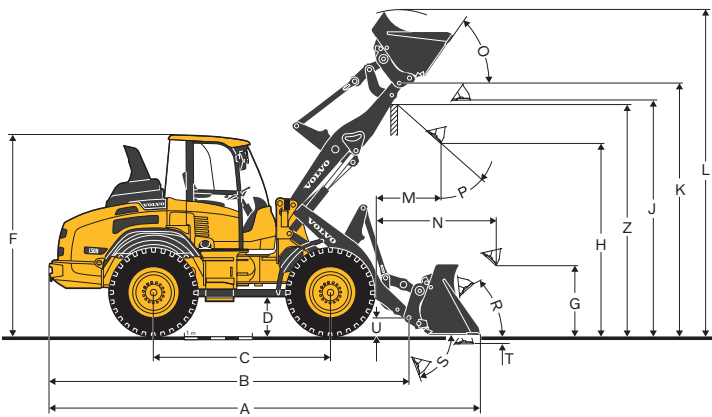
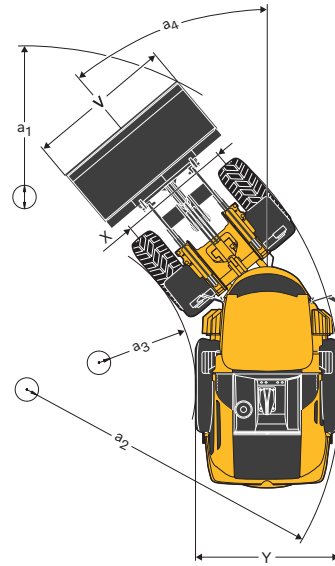
With Loading Fork			TPV attachment bracket		TPV Attachment bracket Long Boom		TPZ attachment bracket		TPZ Attachment bracket Long Boom	
Center of gravity 500 mm / 19.7 in										
A	mm	in	785	30.9	1 135	44.7	650	25.6	1 020	40.1
B	mm	in	1 475	58	1 745	68.7	1 375	54.1	1 645	64.7
C	mm	in	650	25.6	825	32.5	550	21.6	725	28.5
D	mm	in	1 705	67.1	1 705	67.1	1 740	68.5	1 740	68.5
E	mm	in	3 490	137.4	3 695	145.5	3 530	139	3 735	147
F	mm	in	4 225	166.3	4 430	174.4	4 265	167.9	4 470	176
Tipping load full turn (ISO 14397)			kg	lb	4 420	9,744	3 920	8,642	4 670	10,295
Working load acc. to EN 474-3, 60/80 %			kg	lb	2 650 / 3 530	5,842 / 7,782	2 350 / 3 130	5,180 / 6,900	2 800 / 3 730	6,173 / 8,223
Working load 80%, transport position, 40 deg. and full turn			kg	lb	4 000	8,818	-	-	4 000	8,818

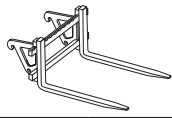
With TP-Linkage, TPV attachment bracket and 15.5-25 tires			GENERAL PURPOSE				LIGHT MATERIAL				4-in-1		High-Tip		LONG BOOM	
																
Capacity heaped	m <sup>3</sup>	yd <sup>3</sup>	1.4	1.8	1.5	2.0	1.8	2.4	2.0	2.6	1.2	1.6	2	2.6	-	-
Material density	kg/m <sup>3</sup>	lb/yd <sup>3</sup>	1800	3,034	1700	2,865	1400	2,360	1200	2,022	1900	3,202	1000	1,685	-300	-505
Static tipping load, straight (ISO 14397)	kg	lb	5 940	13,095	5 860	12,919	5 710	12,588	5 600	12,345	5 580	12,301	4 880	10,758	-	-
Static tipping load, full turn 40° (ISO 14397)	kg	lb	5 250	11,574	5 190	11,442	5 050	11,133	4 960	10,935	4 940	10,890	4 320	9,524	-640	-1,410
Hydraulic lifting capacity, max.	kN	lbf	70	15,736	69.4	15,601	67.5	15,174	66	14,837	66.5	14,950	57.5	12,927	-	-
Breakout force	kN	lbf	71	15,961	69.4	15,601	61.6	13,848	55.8	12,544	76.7	17,242	-	-	-	-
A Total length	mm	in	6 370	250.8	6 385	251.3	6 505	256.1	6 615	260.4	6 295	247.8	6 955	273.8	-	-
L Lift height, max.	mm	in	4 740	186.6	4 790	188.5	4 810	189.3	4 940	194.5	4 815	189.5	5 695	224.2	200	8
V Bucket width	mm	in	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	-	-
a <sub>1</sub> Clearance circle	mm	in	10 310	405.9	10 320	406.3	10 390	409	10 460	411.8	10 305	405.7	10 675	420.2	-	-
T Digging depth	mm	in	85	3.3	85	3.3	85	3.3	85	3.3	120	4.7	95	3.7	-	-
H Dump height, 45°	mm	in	2 800	110.2	2 780	109.4	2 690	105.9	2 610	102.7	2 790	109.8	4 230	166.5	200	8
M Reach at max. height	mm	in	940	37	960	37.8	1 040	40.9	1 115	43.9	830	32.6	1 500	59	170	7
N Reach, max.	mm	in	1 770	69.6	1 785	70.2	1 860	73.2	1 935	76.1	1 650	64.9	2 685	105.7	270	10.6
Operating weight	kg	lb	8 770	19,334	8 790	19,378	8 800	19,400	8 830	19,466	8 990	19,819	9 230	20,348	-	-

With TP-Linkage, TPZ attachment bracket and 15.5-25 tires			GENERAL PURPOSE				LIGHT MATERIAL				4-in-1		High-Tip		LONG BOOM	
																
Capacity heaped	m <sup>3</sup>	yd <sup>3</sup>	1.4	1.8	1.6	2.1	1.8	2.4	2.0	2.6	1,3	1,7	2	2.6	-	-
Material density	kg/m <sup>3</sup>	lb/yd <sup>3</sup>	1900	3,202	1 600	2,696	1400	2,360	1 300	2,191	1 900	3,202	1 100	1,854	-300	-505
Static tipping load, straight (ISO 14397)	kg	lb	6 220	13,712	6 120	13,492	6 020	13,271	5 890	12,985	6 050	13,338	5 260	11,596		
Static tipping load, full turn 40° (ISO 14397)	kg	lb	5 500	12,125	5 420	11,949	5 330	11,750	5 210	11,486	5 350	11,794	4 650	10,251	-640	-1,410
Hydraulic lifting capacity, max.	kN	lbf	74	16,636	72.5	16,298	71.3	16,029	69.5	15,624	72	16,186	62	13,938	-	-
Breakout force	kN	lbf	66	14,837	60.5	13,601	55.5	12,477	50	11,240	65	14,612	-	-	-	-
A Total length	mm	in	6 260	246.5	6 335	249.4	6 415	252.5	6 525	256.9	6 270	246.8	6 825	268.7	-	-
L Lift height, max.	mm	in	4 680	184.2	4 750	187	4 820	189.7	4 890	192.5	4 730	186.2	5 610	220.8	200	8
V Bucket width	mm	in	2 250	88.5	2 250	88.5	2 250	88.5	2 250	88.5	2 250	88.5	2 250	88.5	-	-
a <sub>1</sub> Clearance circle	mm	in	10 125	398.6	10 165	400.1	10 210	402	10 275	404.5	10 165	400.2	10 590	416.9	-	-
T Digging depth	mm	in	90	3.5	90	3.5	90	3.5	90	3.5	45	1.8	80	3.1	-	-
H Dump height, 45°	mm	in	2 875	113.1	2 815	110.8	2 755	108.4	2 675	105.3	2 865	112.8	4 140	163	200	8
M Reach at max. height	mm	in	860	33.8	900	35.4	955	37.6	1 030	40.5	850	33.4	1 370	53.9	170	7
N Reach, max.	mm	in	1 685	66.3	1 725	67.9	1 780	70	1 855	73	1 670	65.7	2 540	100	240	9.4
Operating weight	kg	lb	8 670	19,114	8 710	19,202	8 700	19,180	8 730	19,246	8 920	19,665	9 120	20,106	-	-







# Specifications L50H

With TP-linkage, TPV attachment bracket and 17.5-25 tires					
B	mm	in	5 380		211.8
C	mm	in	2 650		104.3
D	mm	in	435		17.1
F	mm	in	2 980		117.3
G	mm	in	1 000		39.4
J	mm	in	3 525		138.8
K	mm	in	3 780		148.8
O		°		54	
P		°		45	
R		°		44	
S		°		76	
U	mm	in	255		10
X	mm	in	1 730		68.1
Y	mm	in	2 190		86.2
Z	mm	in	3 535		139.2
a <sub>2</sub>	mm	in	4 760		187.4
a <sub>3</sub>	mm	in	2 540		100
a <sub>4</sub>		°		40	



With Loading Fork			TPV attachment bracket		TPV Attachment bracket Long Boom		
							
Center of gravity 500 mm / 19.7 in							
A	mm	in	800	31.5	1 060	41.7	
B	mm	in	1 505	59.2	1 705	67.1	
C	mm	in	655	25.8	785	30.9	
D	mm	in	1 745	68.7	1 745	68.7	
E	mm	in	3 585	141.1	3 735	147	
F	mm	in	4 320	170.0	4 470	176	
Tipping load full turn (ISO 14397)		kg	lb	4 810	10,604	4 410	9,722
Working load acc. to EN 474-3, 60/80%		kg	lb	2 880 / 3 840	6,349 / 8,465	2 640 / 3 520	5,820 / 7,760
Working load 80%, transport position, 40 deg. and full turn		kg	lb	4 000	8,818	-	-



With TP-Linkage, TPV attachment bracket and 17.5-25 tires			GENERAL PURPOSE				LIGHT MATERIAL				4-in-1		High-Tip		LONG BOOM	
																
Capacity heaped	m <sup>3</sup>	yd <sup>3</sup>	1.5	2	1.6	2.1	1.8	2.4	2	2.6	1.4	1.8	2.3	3	-	-
Material density	kg/m <sup>3</sup>	lb/yd <sup>3</sup>	1900	3,202	1700	2,865	1500	2,528	1300	2,191	1900	3,202	1000	1,685	-250	-421
Static tipping load, straight (ISO 14397)	kg	lb	6 560	14,462	6 510	14,352	6 400	14,109	6 290	13,867	6 080	13,404	5 550	12,235	-	-
Static tipping load, full turn 40° (ISO 14397)	kg	lb	5 810	12,808	5 750	12,676	5 670	12,500	5 570	12,279	5 390	11,882	4 910	10,824	-510	-1,124
Hydraulic lifting capacity, max.	kN	lbf	86.5	19,446	86	19,333	84.5	18,996	83	18,659	81.5	18,322	73	16,411	-	-
Breakout force	kN	lbf	72	16,186	69	15,511	64	14,387	58	13,039	65	14,612	-	-	-	-
A Total length	mm	in	6 460	254.3	6 495	255.7	6 580	259	6 690	263.4	6 560	258.2	7 030	276.8	-	-
L Lift height, max.	mm	in	4 880	192.1	4 900	192.9	4 980	196	5 235	206.1	4 905	193.1	5 915	232.9	150	5.9
V Bucket width	mm	in	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	2 250	88.6	-	-
a <sub>1</sub> Clearance circle	mm	in	10 360	407.9	10 385	408.8	10 435	410.8	10 505	413.6	10 475	412.4	10 740	422.8	-	-
T Digging depth	mm	in	95	3.7	95	3.7	95	3.7	95	3.7	130	5.1	105	4.1	-	-
H Dump height, 45°	mm	in	2 865	112.8	2 845	112	2 775	109.2	2 695	106.1	2 745	108	4 330	170.4	-	-
M Reach at max. height	mm	in	965	38	1 000	39	1 040	40.9	1 115	43.9	965	38	1 505	59.2	130	5.1
N Reach, max.	mm	in	1 810	71.2	1 830	72	1 890	74.4	1 970	77.5	1 810	71.2	2 710	106.7	200	8
Operating weight	kg	lb	9 480	20,900	9500	20,944	9 490	20,921	9 520	20,988	9 740	21,473	9 960	21,958	-	-

# Equipment

STANDARD EQUIPMENT	L45H	L50H
<b>Engine</b>		
Dry-type air filter	•	•
Three stage air cleaner, pre-cleaner, primary and secondary filter	•	•
Preparation for pre-cleaner	•	•
Preheating of induction air	•	•
Side by side (single layer) cooling pack	•	•
Coolant level monitoring	•	•
Filtration screens on air inlets	•	•
Fuel pre-filter with water trap	•	•
Crank case breather oil trap	•	•
Exhaust after-treatment system	•	•
Exhaust heat ventilation	•	•
<b>Drivetrain</b>		
Hydrostatic drive	•	•
Inching-brake pedal (hydrostatic wearless braking ahead of service brake application)	•	•
Wet disc service brakes, hydraulically operated	•	•
Dry disc parking brake	•	•
Operator-selected 100% differential locks in both axles	•	•
<b>Electrical system</b>		
24 V electrical system (2 X 12V maintenance free batteries)	•	•
Batteries covered by lockable engine hood	•	•
Electronic battery cut-off switch	•	•
Alternator 110 A / 3 080 W	•	•
Electric horn	•	•
Care Track GSM	•	•
<b>Hydraulic system</b>		
Load-Sensing Hydraulics	•	•
Flow sharing main control valve, three-spool system	•	•
Variable displacement axial piston pump for working hydraulic and steering	•	•
Gear pump for brake system and cooling fan	•	•
3rd hydraulic circuit	•	•
Bucket positioner	•	•
Indicator glass for hydraulic oil level	•	•
Thermostatically controlled oil flow to oil cooler (fast warm-up, optimized cooling)	•	•
<b>Lights</b>		
Main head lights (halogen) upper/dipped/asymmetrical	•	•
Working lights, halogen (2 front/2 rear)	•	•
Parking lights	•	•
Rear lights	•	•
Brake lights	•	•
Direction indicators	•	•
Hazard warning lights	•	•
Reversing lights	•	•
Cab lighting	•	•
<b>Service</b>		
Standard tool kit	•	•
Drain valves for engine oil, hydraulic oil and coolant	•	•
Hydraulic pressure test ports with quick-connects	•	•
<b>Instrumentation &amp; controls</b>		
24 Volt accessories socket	•	•
Hazard warning switch	•	•
<b>Safety start</b>		
<b>Electronic Information System</b>		
Contronic display with keypad	•	•
Monitoring of fuel level, fuel consumption, Diesel Exhaust Fluid level, temperatures and pressures (engine, ambient, transmission, hydraulics, brakes and steering)	•	•
LED-illuminated symbols are available for direction indicators, transportation & work lights, rotating beacon*, parking brake, engine oil pressure, battery charging, differential lock, boom suspension system*, DEF warning, regeneration and high exhaust temperature. *optional	•	•
<b>Cab, Exterior</b>		
ROPS/FOPS-cab	•	•
Cab cushioning	•	•
Single key kit door / start	•	•
Lockable door	•	•
Door stops	•	•
All-round tinted safety glass	•	•
Sliding window RHS	•	•
Two-stage air inlet filtration with large easy to replace elements	•	•
External rear view mirrors (right/left)	•	•
Windscreen wiper (front/rear)	•	•
Windscreen washer (front/rear)	•	•

STANDARD EQUIPMENT	L45H	L50H
<b>Cab, Interior</b>		
Acoustic inner lining	•	•
Floor mat	•	•
Adjustable steering column	•	•
Left and right armrests	•	•
4-way adjustable operator's seat	•	•
Retractable seat belt	•	•
Sunvisor	•	•
Interior rear view mirror	•	•
Air conditioner	•	•
Automatic heat control	•	•
Several air vents on the front and rear of the cab, allowing excellent climate control, demisting and defrosting	•	•
Interior light	•	•
Coat hook	•	•
Cup holder	•	•
Storage box in the cab	•	•
24 V power outlet	•	•
Emergency hammer	•	•
Seat mec/susp	•	•
<b>Working Equipment</b>		
Automatic bucket positioner	•	•
Hydraulic quick-change attachment bracket	•	•
<b>External equipment</b>		
Fenders (front/rear)	•	•
Lockable engine hood	•	•
Lockable fuel-tank cap	•	•
Lockable Diesel Exhaust Fluid filler cap	•	•
Vertical exhaust	•	•
Frame, joint lock	•	•
Towing device	•	•
Lifting eyes and Tie-down points	•	•
<b>Official approval</b>		
Machine conforming to European directive 2006/42/EC	•	•
Electromagnetic compatibility (EMC) conforming to European directive 2014/30/EC	•	•
Noise emissions in the environment conforming to directive 2000/14/EC	•	•
Tipping load and payload conforming to ISO 14397-1	•	•
ROPS conforming to ISO 3471	•	•
FOPS conforming to ISO 3449	•	•

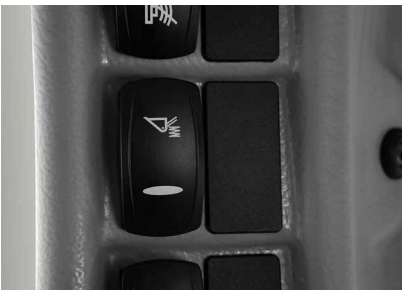
OPTIONAL EQUIPMENT	L45H	L50H
<b>Engine</b>		
Handthrottle	•	•
Fuel preheater	•	•
Automatic engine shutdown	•	•
Turbo II Prefilter	•	•
Air pre-cleaner, oil-bath type	•	•
Fan speed, high ambient	•	•
Reversible cooling fan	•	•
Engine Block heater, 120 V	•	•
<b>Drivetrain</b>		
Hand-inching	•	•
20 km/h / 12 mi/h version	•	•
30 km/h / 19 mi/h version	•	•
40/50 km/h*	•	•
*max vehicle speed market dependent		
<b>Electric</b>		
Rotating beacon foldable	•	•
Preparation for magnetic rotating beacon	•	•
Magnetic rotating beacon	•	•
Reverse alarm audible	•	•
Reverse alarm audible & switchable	•	•
Reverse alarm audio visual switchable	•	•
Rear view camera incl monitor (color)	•	•
LED Working lights on cab, 2 front / 2 rear	•	•
LED Working lights on cab, 4 front / 4 rear	•	•
Additional LED Working lights, 2 front / 1 rear	•	•
Elevated headlights 350 mm / 13.8 in	•	•
Road light equipm. width 2.5 m / 8.2 ft	•	•
Power outlet 12 V	•	•
Anti theft device	•	•
Care Track Satellite	•	•

OPTIONAL EQUIPMENT	L45H	L50H
<b>Hydraulics</b>		
Hyd oil mineral VG46 HV	•	•
Hyd oil mineral VG32 HV	•	•
Hyd oil mineral VG68 HV	•	•
Boom suspension system	•	•
Boom kickout	•	•
Safety valve for lift cylinder	•	•
Combination Boom suspension system with safety valves for boom cylinder	•	•
Tilt control	•	•
Tilt speed limiter mechanical	•	•
Safety valve for tilt cylind.	•	•
4th function	•	•
Hydr. Couplings	•	•
High flow L45H: 125 l/min (33.0 gal/min)	•	–
High flow L50H: 143 l/min (37.8 gal/min)	–	•
Auxiliary hydraulic's return line (via filter)	•	•
<b>Cab</b>		
Door all glass	•	•
Door with sliding window	•	•
Foldable right hand window	•	•
Split door (Door with foldable window)	•	•
Heated rearview mirrors	•	•
Seat fab air/susp heat	•	•
Seat belt 3"	•	•
Seat belt warning	•	•
Comfort drive control (CDC)	•	•
Radio preparation 12 V	•	•
Radio	•	•
Joystick control including F/R/N, up/down-shift, differential lock and 3rd hydraulic function	•	•
Multilever control, including F/R/N, up/down-shift, differential lock, horn and 3rd hydraulic function	•	•
Multilever control, including F/R/N, up/down-shift, differential lock, horn, 3rd & 4th hydraulic function	•	•
Timer cab heating (Pause heating)	•	•
Auxiliary cab & engine heater	•	•

OPTIONAL EQUIPMENT	L45H	L50H
<b>Service</b>		
Wheel chock	•	•
Tool Kit	•	•
Central Lub unit (Volvo)	•	•
<b>Wheel/Tires</b>		
500/70R24	•	•
540/65R24	•	–
15.5R25	•	•
17.5R25	•	•
3-piece rim	•	•
550/65R25	•	•
600/55-26.5	•	•
<b>Protective equipment</b>		
Front Mudflaps	•	•
Extended mudflaps	•	•
Mudguard extension 75 mm / 2.95 in	•	•
Belly guards, front/rear	•	•
Rear lights protection	•	•
Headlights protection	•	•
Working lights guards, front/rear	•	•
Windshield guard, rear	•	•
Windshield guard, front	•	•
Engine hood protection	•	•
<b>Other</b>		
Long boom	•	•
Preparation for licence plate	•	•
Side marking reflectors	•	•
SMV warning triangle	•	•
Trailer socket	•	•
Multiline license plate retainer	•	•
Colour Level 1 (yellow parts)	•	•
Colour Level 1+2	•	•
<b>Other attachments</b>		
Log grapples	•	•
Forks	•	•
Material handling arm	•	•
General Purpose bucket	•	•
High-Tip bucket	•	•
Light material bucket	•	•
Clamp bucket	•	•

## SELECTION OF VOLVO OPTIONAL EQUIPMENT

Boom Suspension System



Comfort Drive Control



Reversible cooling fan



3rd and 4th hydraulic function



Auxiliary cab and engine heater



Central lubrication system



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

**V O L V O**